

2016 Korea-Japan Joint Symposium on Rock Engineering &
2016 Spring Conference and General Assembly of Korean Society for Rock Mechanics

Creative Development of Rock Mechanics and Engineering

Korea Institute of Geoscience and Mineral Resources (KIGAM),
Daejeon, KOREA May 19 - 20, 2016

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Organized by
Korean Society for Rock Mechanics (KSRM) & Japanese Society for Rock Mechanics (JSRM)

Supported by
Korea Institute of Geoscience and Mineral Resources (KIGAM)

Invitation

The Korean Society for Rock Mechanics (KSRM) cordially invites the community of rock mechanics and rock engineering not only in Korea and Japan, but also from all over the world to attend the 2016 Korea-Japan Joint Symposium on Rock Engineering. The Joint Symposium series have been held every two or three years since 1996, alternately organized by KSRM and Japanese Society for Rock Mechanics (JSRM). This coming symposium will be held in Daejeon, Korea, which is called "Hub City of R&D and Creative Knowledge Industry in Korea", since the city hosted the World EXPO 1993 and holds the largest Daedeok Research and Development Area where over 30 government-funded research institutes, 19 universities, and 400 privately funded business R&D centers are located. The theme of the Symposium "Creative Development in Rock Mechanics and Rock Engineering" was selected because creative thinking is more in demand than ever in mining, petroleum, civil, and energy industries. We would like to welcome all of you to Daejeon in May 2016 to exchange knowledge and experiences in rock mechanics and rock engineering. Looking forward to meeting you in Daejeon, Korea!

Symposium Chairman, Joong-Ho Synn

Keynote Lectures

Keynote Lecture 1 : Geothermal Development in Korea

Yoonho Song(KIGAM, Korea)

Korea has shown remarkable increase of geothermal utilization. Continuous R&D efforts for utilization deep geothermal resources including pre-feasibility study of enhanced geothermal system (EGS) have been being carried out, focusing on EGS pilot plant using deep borehole to the depth of 5 km in Pohang, located in the southeastern part of Korea. Recent development of geothermal projects in Korean Peninsula is introduced.

Keynote Lecture 2 : Fracture toughness in rock fracture mechanics

Yuzo Obara(Kumamoto University, Japan)

In order to understand the fracture behavior of rock, fracture toughness which indicates the resistance to pre-existing crack initiation is an important property. In the lecture, the influence of specimen size and type for various rocks on fracture toughness is demonstrated, based on results obtained by a series of fracture toughness tests.

Keynote Lecture 3 : Challenges of Tunnelling through difficult ground conditions of the Himalayas - Status, Pitfalls, and Way Forward

Manoj Verman(President of ISRM NG India)

Tunnelling through the Himalayas has always been challenging. Numerous failures and cost & time overruns during the past several decades have been attributed to the complexity of Himalayan geology, which is perceived to be a significant barrier to sustainable development of projects. While there is no denying the fact that the Himalayas pose the toughest challenges to tunnelling in the world (followed closely by the Andes in South America and the Alps in Europe) due to frequently changing ground conditions, presence of water, high stress conditions and regular encountering of poor rock mass, there are ways to tackle these issues and move forward. The presentation aims to discuss the issues, analyse the current status, identify the pitfalls and suggest ways to move forward.

Preliminary Program

May 19 (Thursday)		May 20 (Friday)	
13:00~13:30	Registration	09:15~11:15	Session 3 Session 4
13:30~14:00	KSRM General Assembly	11:15~11:30	Coffee Break
14:00~14:30	Opening Ceremony	11:30~12:15	Keynote Lecture 3
14:30~15:15	Keynote Lecture 1	12:15~12:30	Closing Ceremony
15:15~16:00	Keynote Lecture 2	12:30~13:30	Lunch
16:00~16:15	Coffee Break	13:30~16:30	Technical Visit (KURT)
16:15~18:15	Session 1 Session 2		
18:30	Reception		

(Session 2 will be operated in Korean)

Subjects of the Symposium

Papers on the wide variety of topics in rock mechanics and rock engineering are invited to submit.

- Fundamental rock mechanics
- Laboratory and field testing and physical modeling
- Analytical and numerical methods in rock mechanics and rock engineering
- Underground excavations in civil and mining engineering
- Petroleum geomechanics
- Rock dynamics
- Environmental issues in mining and land development
- Slope stability and subsidence for surface and underground mining system
- Coupled processes in rock mass
- New frontiers of rock mechanics

Presentations

Presentation should be in English. Each presentation shall take 15 minutes including discussions. Presentation material in MS PowerPoint(PPT) format will work.

Language

The official language of the Joint symposium is English.

Registration Fee

	Early Bird(Until 15 th April)	Standard(From 16 th April)
Regular(Member of KSRM/JSRM/ISRM)	₩160,000	₩200,000
Regular(Non Member)	₩200,000	₩240,000
Student	₩100,000	₩120,000

* ₩ is Korean currency WON

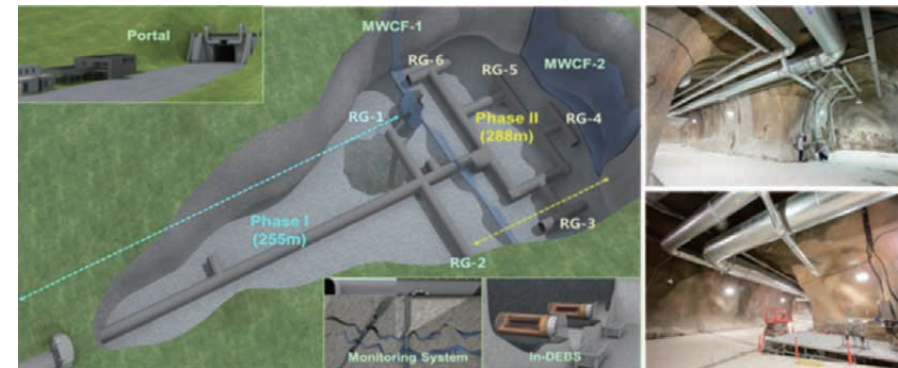
* Regular and student registration fee includes proceedings, reception, and access to all sessions.

Important Dates

Abstract submission (no more than 300 words and a major figure):	February 20, 2016
Preliminary notification of acceptance to authors:	February 29, 2016
Extended abstract submission:	March 31, 2016
Final notification of acceptance to authors:	April 7, 2016

Technical Visit

KAERI Underground Research Tunnel (KURT) is a research facility within the Korea Atomic Energy Research Institute KAERI in Daejeon. KURT is solely for research purposes. KURT is a horseshoe shaped tunnel, and the cross section is 6 m × 6 m. The total length of KURT with an access tunnel and six research galleries is 543 m. Investigations are being carried out in the granite, which is considered as one of the host rocks for a geological disposal of high level radioactive waste.



Location of Venue

The Symposium will be held in Korea Institute of Geoscience and Mineral Resources, Daejeon, Korea. Daejeon is located at the center of Korea, which lies approximately 160 kilometers south from Seoul.



Korea Institute of Geoscience and Mineral Resources (KIGAM), 124 Gwahang-no, Yuseong-gu, Daejeon 34132 KOREA

Access from Airport

From Incheon International Airport to KIGAM : Passengers can get information about Airport Limousines, Premium Buses and ticketing at the following ticket booths in Incheon International Airport: Exit 4 and 9 (indoors) & Exit 4, 6, 7, 8, 11, 13, and 9C (outdoors).

After purchasing your Airport Limousine Bus ticket, please take an Airport Limousine Bus at the bus stop number '9D' on the 1st floor. After purchasing your Airport Limousine Bus ticket, please take an Airport Limousine Bus at the bus stop number '9D' on the 1st floor.

(The Airport Limousine bus usually runs every 20 to 40 minutes, but the interval could be different depending on the bus type).

Get off at the bus stop of "Daejeon Government Complex" and take a taxi to KIGAM. It will take less than 10 minutes to get to KIGAM from there. For more details on the Airport Limousine Buses, please refer to the link below: <http://www.airport.kr/pa/en/a/3/1/1/index.jsp>

From Seoul to KIGAM by KTX (Express Train) : If you take KTX (Express Train) from Seoul Station to Daejeon Station, it will take you about an hour. When you get off at Daejeon Station, please take a taxi to KIGAM (about 30 minutes).

General Information

Visa : A visa is required for citizens of countries that do not have visa exempt agreements with Korea. Please, contact the nearest Korean Embassy of Consulate for visa requirements.

Climate : The temperature during the period of the Symposium ranges between 10-20 degrees (Celsius)

Electricity : Electric current is uniformly 220 volts, AC with 60 Hz throughout Korea. Sockets accept a two-circular leg plug only.

Currency Exchange : Only Korean currency WON (₩) is acceptable both at the registration desk in the Symposium and at the regular stores and restaurants in Korea.

Credit Cards : VISA and MasterCard are accepted at the registration desk in the Symposium. And they are widely accepted in hotels, department stores, shops and restaurants in Korea.

